Flight Surgeon Refresher Course

Section 3: Aeromedical Training

Introduction

(FSRC300)

AEROMEDICAL TRAINING

Introduction

Helping the aviation commander train his aircrew members is one responsibility shared by both the Flight Surgeon and Aeromedical PA. The commander is required by regulation to conduct aeromedical training in accordance with FM 3.04-301 and expects you to assist in the development of that aeromedical training program.

This is because, as a trained and skilled clinician, you have the scientific background and expertise to develop and deliver lessons on the important subjects of altitude physiology, spatial disorientation, and stress and fatigue.

Why these particular subjects?

First, in the quest to achieve and maintain cutting edge combat preparedness, commanders tend to push their personnel and fighting equipment/machines to the limits of their capabilities (and sometimes beyond). This is especially true in the field of Army Aviation which can be a particularly harsh, unforgiving and stressful environment even during the best of operational conditions like daylight and fair weather. Conducting combat maneuvers at night and/or during inclement weather at a sustained and high operational tempo simply multiplies the physical and psychological stresses on personnel.

Second, because human physiology is the weakest link in the aviation combat system, one of your commander's main concerns is the impact of continued high, sustained levels of stress placed on the unit's aviation personnel. For example, spatial disorientation accounts for about 27% of all Army aviation Class A mishaps. As a result, your commander looks to you and the application of your knowledge of physiology and experience as a flight surgeon in areas like aviation crew endurance, drug administration, and special mission requirements, to be a critical force multiplier that achieves positive result such as increasing personnel stress tolerance and reducing Army aviation accidents.

This module begins by refreshing your knowledge of Stress and Fatigue and their countermeasures. Next, key aspects of Altitude Physiology, Spatial Disorientation, Noise, and Vibration will be discussed. Aviation specific issues of Vision and Toxicology will be highlighted. At the end of these lessons, you will find the necessary references to increase your learning and stock your library.

Objectives:

a. Manage the effects of stress and fatigue in aircrew and advise the commander on appropriate countermeasures

b. Manage the physiologic effects of altitude as an aircrew member to include hypoxia and various trapped air dysbarisms

c. Describe the physiological systems which maintain orientation in the aviation environment.

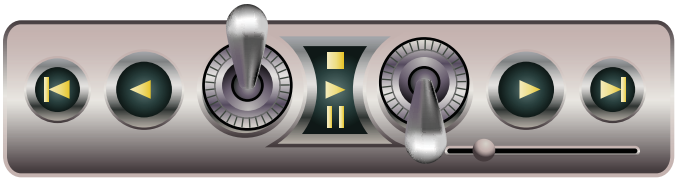
d. Recognize Spatial Disorientation and the factors contributing to Spatial Disorientation

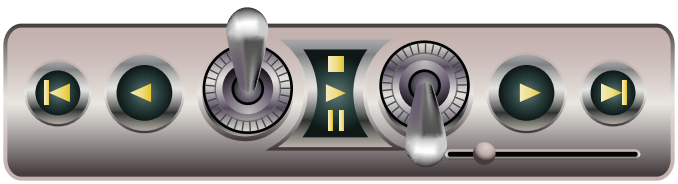
e. Prevent the adverse effects of noise encountered in the aviation environment

f. Describe the physiological effects of vibration found in the aviation environment

g. Manage the effects of visual limitations during night flight.

h. Identify toxic hazards found in the aviation environment and take basic measures to protect members of the unit from these hazards.





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